west was a second of the secon

## **End of Result Set**

Generate Collection Print

L1: Entry 2 of 2

File: USPT

Mar 30, 1999

US-PAT-NO: 5888507

DOCUMENT-IDENTIFIER: US 5888507 A

TITLE: Treatment for insulin dependent diabetes

DATE-ISSUED: March 30, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Burkly; Linda C. West Newton MA

US-CL-CURRENT: <u>424/130.1</u>; <u>424/133.1</u>, <u>424/145.1</u>, <u>424/152.1</u>, <u>424/158.1</u>, <u>424/172.1</u>, <u>514/2</u>

CLAIMS:

## I claim:

- 1. A method for the treatment of insulin dependent type I diabetes comprising administering to a prediabetic mammal, or a mammal having partial .beta. cell destruction, one or more compositions selected from the group consisting of an antibody capable of binding to the .alpha..sub.4 subunit of VLA-4, an antigen binding fragment of said antibody and a soluble VCAM-1 polypeptide capable of binding to the .alpha..sub.4 subunit of VLA-4, in an amount effective to treat diabetes.
- 2. A method according to claim 1, wherein the soluble VCAM-1 polypeptide comprise a VCAM-IgG fusion.
- 3. A method according to claim 1, wherein the composition is administered in an amount effective to provide a plasma level of a soluble VCAM-1 polypeptide in the mammal of at least 10-20 .mu.g/ml over a period of 1-14 days.
- 4. A method according to claim 1, wherein the soluble VCAM-1 polypeptides comprise VCAM 2D-IgG.
- 5. A method according to claim 1, wherein the composition comprises anti-VLA-4 monoclonal antibodies or VLA-4-binding fragments thereof.
- 6. A method according to claim 1, wherein the composition is administered at a dosage so as to provide from about 0.1 to about 10 mg/kg of antibody or an antigen binding fragment of said antibody, based on the weight of the susceptible mammal.
- 7. A method according to claim 1, wherein the composition is administered in an amount effective to block VLA-4 antigen on VLA-4 positive cells in the peripheral blood for a period of 1-14 days.

- 8. A method according to claim 1, wherein the composition is administered in an amount effective to provide a plasma level of antibody or an antigen binding fragment of said antibody, in the mammal of at least 1 .mu.g/ml over a period of 1-14 days.
- 9. A method according to claim 1, wherein the composition comprises an antibody or an antigen binding fragment of said antibody capable of binding to the .alpha..sub.4 subunit of VLA-4.
- 10. A method according to claim 1, wherein the composition comprises a soluble VCAM-1 polypeptide capable of binding to the .alpha..sub.4 subunit of VLA-4.
- 11. A method according to claim 1, wherein the antibody is a recombinant antibody.
- 12. A method according to claim 1, wherein the antibody is a humanized antibody.
  - 13. A method according to claim 1, wherein the mammal is prediabetic.
  - $14.\ \mbox{A}$  method according to claim 1, wherein the mammal has partial .beta. cell destruction.